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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/472,683	12/27/1999	MENACHEM KAPLAN	204.344	9079

7590

02/04/2003

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EXAMINER

HO, DUC CHI

ART UNIT

PAPER NUMBER

2665

DATE MAILED: 02/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

DUE BY REG 5/4/03DOCKETED ON 2/11/03

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ATTORNEY J S C

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APR 11 2003

Technology Center 2600



Office Action Summary

Application No.

09/472,683

Applicant(s)

KAPLAN ET AL.

107

Examiner

Duc C Ho

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 1999.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14 and 19-26 is/are allowed.
- 6) ☒ Claim(s) 1, 12 and 13 is/are rejected.
- 7) ☒ Claim(s) 2-11 and 15-18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

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Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

**DETAILED ACTION**

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***Claim Objections***

1. Claims 15-18 are objected to because of the following informalities: The preamble of the independent claim 14 discloses a network access multiplexing system. Therefore, the word "Apparatus" as appeared in the preamble of claims 15-18 should be replaced by the word "system" in order to be consistent with the term used in the independent claim.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102(e) that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –  
(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1, 12 are rejected under 35 U.S.C. 102(e) as being anticipated by the admitted prior art of the instant application in figures 1, and its block diagram in figure 2B.

Regarding claim 1, figure 2B of the admitted prior art of the instant application is block diagrams that schematically illustrate topologies known in the art for use in multi-shelf access systems, such as that shown in fig. 1, page 2, lines 18-25, wherein the core network 22 is an ATM network ( packet -switched network ), page 2, lines 1-4.

*first and second master units ( first and second master units 25-fig. 2B) , each comprising a physical interface to a packet-switched network ( As shown, each master unit 25 connected to the ATM network 22, therefore, each master unit 25 inherently includes a physical interface to the network 22);*

*a plurality of slave units, each slave unit comprising one or more ports to respective subscriber lines (The admitted prior art in figure 1 of the instant application discloses a DSLAM system 20 implementing a multi-shelf architecture. The DSLAM 20 has a plurality of slave units 27, and each slave unit comprises a plurality of ports to respective subscriber premises via suitable DSL modems, page 2, lines 11-14 );*

*a plurality of physical interface lines, which link the slave units in one or more daisy chains ( the bi-directional arrows which links the slave units 27-fig. 2B in daisy chain constitute a plurality of physical interface lines), in which the slave units are mutually connected in series by the physical interface lines therebetween ( as shown, the slave units 27-fig. 2B are mutually connected in series by the physical interface lines), each daisy chain comprising at least a first slave unit connected by one of the physical interface lines to the first master unit and a last slave unit connected by another of the physical interface lines to the second master unit ( the shown daisy chain having the first slave unit 27-fig. 2B connected to the first master unit via a physical interface*

line, and the last slave unit 27-fig. 2B connected to the second master unit via another physical interface line) .

Regarding claim 12, the network 22-fig. 2B is an Asynchronous Transfer Mode network, page 2, column 1-5.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art of the instant application in figures 1, and 2B as applied to claim 1

above, and further in view of Phillips et al. (US 6,181,715), hereinafter referred to as Phillips.

Regarding claim 13, the admitted prior art of the instant application in figures 1, and 2B disclose all claimed limitations, except *the network comprises an Internet Protocol (IP) network*.

Phillips discloses a method and system for emulated telephony over DSL. Referring to figure 1, a DSLAM 54 connected to the packet network 20 (IP network, column 4, lines 3-5) includes a transmission unit 56 and an adaptation layer 58, serving a plurality of remote terminals 60, 62, and 64 with a corresponding DSL 61, 62, and 65 respectively, column 5, lines 3-13.

It would have been obvious to one of ordinary skill in the art, at the time invention was made, to employ a DSLAM unit connecting to an IP network as taught by Phillips into the system of the admitted prior art in figures 1, and 2B of the instant application in order to reduce the cost requiring major investment in new infrastructure since DSL opens the most critical bottleneck in local-loop access to high-speed network such as ATM and IP networks.

#### ***Allowable Subject Matter***

8. Claims 14, and 19-26 are allowed.
9. Claims 15-18 would be allowable if rewritten or amended to overcome the objection(s) set forth in this Office action.

10. Claims 2-11 are objected to as being dependent upon a rejected base claim, but would be allowable if written in independent form including all of the limitations of the base claim and any intervening claims.

### ***Reason for Allowance***

11. Regarding claim 14, the prior art fails to teach or suggest in a network access multiplexing system comprises a pre-switch, coupled to receive packets from the first physical interface and responsive to address data carried by the packets, to sort the packets such that packets addressed to the slave unit are retained, and packets addressed to the succeeding units are passed to the second physical interface, in combination with other limitations.

Regarding claims 19-26, the prior art fails to teach or suggest a method for providing access to a network, comprises a step in the event of a fault in the daisy chain, conveying further downstream data packets, received from the network by one of the master units, along the daisy chain in a second direction, opposite to the first direction, so as to deliver the further packets to the ports of at least some of the slave units, in combination with other limitations, as specified in claim 19.

### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Fink et al. (US 6,219,354); Voit et al. (US 6,424,657) are cited to show bi-directional chaining of network access ports, which is considered pertinent to the claimed invention.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Ho whose telephone number is (703) 305-1332. The examiner can normally be reached on Monday through Friday from 7:00 am to 3:30 pm.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (703) 308-6602.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4750

14. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,

Arlington, VA, Sixth Floor (Receptionist).

Patent Examiner



Duc Ho

1-23-03



# **Notice of References Cited**

Application/Control No.

09/472,683

Applicant(s)/Patent Under  
Reexamination  
KAPLAN ET AL.

Examiner

Duc C Ho

Art Unit

2665

Page 1 of 1

## **U.S. PATENT DOCUMENTS**

	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
A	US-6,181,715	01-2001	Phillips et al.	370/493
B	US-6,424,657	07-2002	Voit et al.	370/412
C	US-6,219,354	04-2001	Fink et al.	370/463
D	US-			
E	US-			
F	US-			
G	US-			
H	US-			
I	US-			
J	US-			
K	US-			
L	US-			
M	US-			

## **FOREIGN PATENT DOCUMENTS**

	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
N					
O					
P					
Q					
R					
S					
T					

## **NON-PATENT DOCUMENTS**

Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)

U	
V	
W	
X	

Copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
s in MM-YYYY format are publication dates. Classifications may be US or foreign.